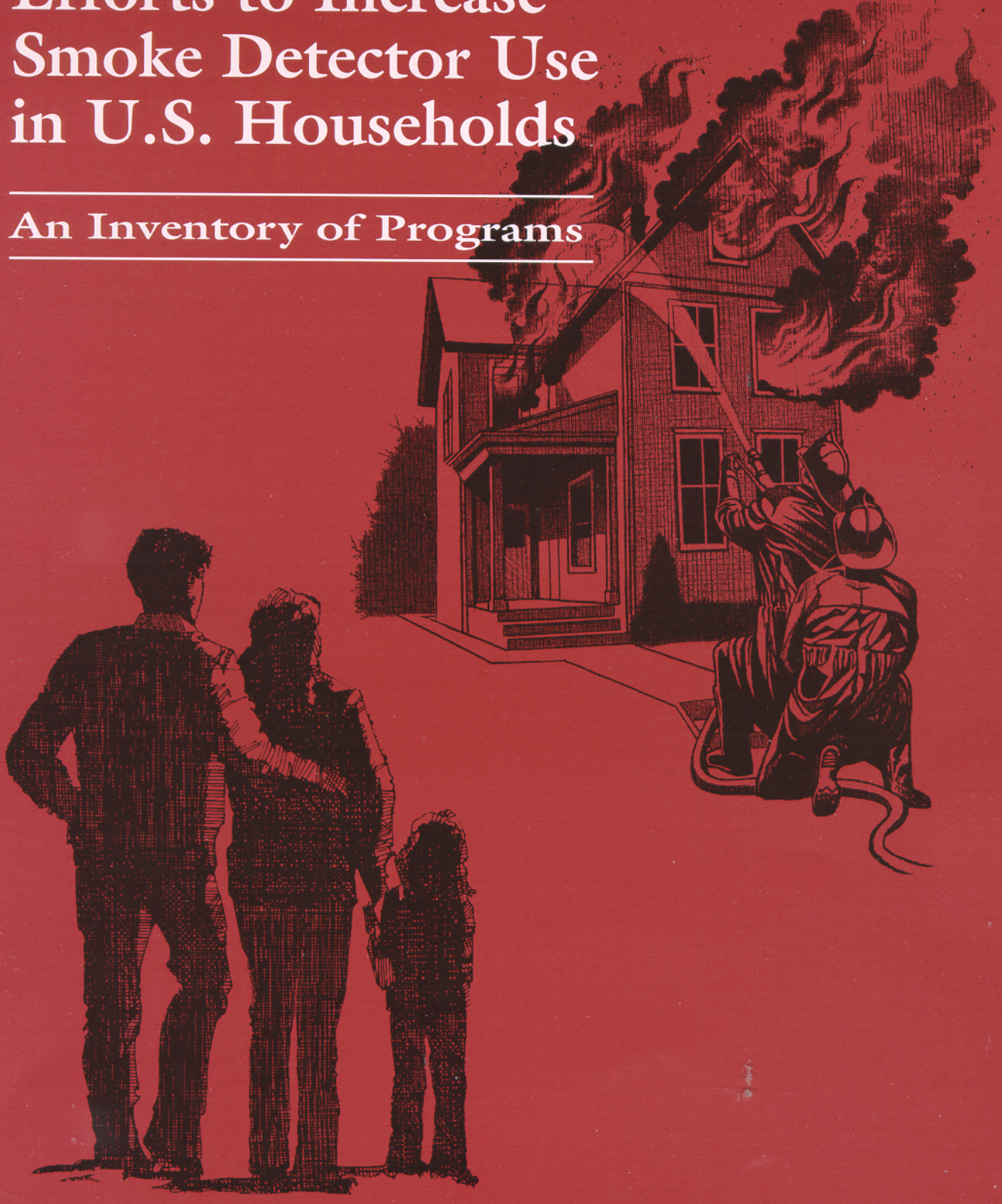
Efforts to Increase Smoke Detector Use in U.S. Households

An Inventory of Programs



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

Efforts to Increase Smoke Detector Use in U.S. Households

An Inventory of Programs

Compiled by
Ruth Shults, RN, MPH
Pauline Harvey, MSPH

National Center for Injury Prevention and Control

Atlanta, Georgia
1996

This inventory is a publication of the National Center for Injury Prevention and Control of the Centers for Disease Control and Prevention:

Centers for Disease Control and Prevention
David Satcher, MD, PhD, Director

National Center for Injury Prevention and Control
Mark L. Rosenberg, MD, MPP, Director

Division of Unintentional Injury Prevention
La Tanya Beale, Acting Director

Home and Leisure Injury Prevention Team
Christine M. Branche-Dorsey, PhD, Leader

Production services were provided by the staff of the Office of Health Communications, National Center for Injury Prevention and Control, and the Management Analysis and Services Office:

Editing and Text Design
Daphna Gregg, RN
Valerie R. Johnson
Gwendolyn A. Ingraham

Cover Design and Layout
Barbara B. Lord

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Contents

Introduction

Each year in the United States, thousands of people die or are severely injured by fires and burns. In 1992 alone, fires and burns claimed the lives of 4,800 people. At the Centers for Disease Control and Prevention's National Center for Injury Prevention and Control, the Division of Unintentional Injury Prevention (DUIP) works to prevent these needless deaths by conducting, coordinating, and funding fire and burn prevention research and interventions at the state, local, and community levels.

One of the most effective ways to prevent deaths and injuries from fires is to install and maintain smoke detectors in households. As part of this effort, the DUIP conducted a nationwide survey in 1994 to identify the various strategies being used to increase the use of smoke detectors in homes. Agencies from across the country responded to the survey, providing detailed descriptions of how they conducted smoke detector giveaway programs, how their programs increased the prevalence of smoke detector use in residences, and the lessons they learned from the experience. This publication features the descriptions of 49 programs from 33 states as well as two national programs.

The 10 programs at the beginning of this book (pages 3–24) are described first because they are more comprehensive than the other programs in terms of design, conduct, and results received, and they are more representative of the general population demographically. These 10 programs have used unique sampling strategies, and they have conducted evaluations to assess the prevalence and adequacy of smoke detectors as well as the effectiveness of smoke detector maintenance strategies. Descriptions of the other programs (pages 25–110) further illustrate the broad range of smoke detector giveaway programs taking place in the United States. Some of these programs have been completed, and others are ongoing.

The purpose of this publication is to raise people's awareness of what fire departments, health departments, and other groups are doing to increase the use of smoke detectors in households across the United States, because this is a crucial part of fire prevention activities. This document also should serve as a model for groups interested in conducting programs to distribute smoke detectors as part of their fire prevention activities. For more information about a particular program, call or write to the contact person listed at the beginning of the program description. For information about CDC's work in fire and burn prevention, please contact:

Division of Unintentional Injury Prevention (Mail Stop K–63)
National Center for Injury Prevention and Control
Centers for Disease Control and Prevention
4770 Buford Highway, NE
Atlanta, GA 30341–3724

Comprehensive Programs in Five States

Fond du-Lac Reservation

Contact

Mike Snesrud, Public Health Nursing Director
Fond du-Lac Reservation
927 Trettel Lane
Cloquet, MN 55720
(218) 878–2124

Partners

Minnesota Department of Health, Department of Injury Prevention ($10,000 to expand target population); Area Indian Health Service ($5,000 to expand target population).

Program

A comprehensive community injury prevention study was done in 1984 and 1985. Results showed that most homes on the reservation (the target population) were without smoke detectors. Of 2,000 homes, 80 percent did not possess smoke detectors.

Beginning in 1988 and maintained by small grants, the program involved a comprehensive assessment of home safety needs conducted by public health nurses. Home health aides, maternal/child health nurses, and community health representatives now also perform the home safety surveys through grants from the Department of Health and the Indian Health Service. Each month, they conduct 20–30 visits, which include a 20–minute survey along with education and giveaways (such as smoke detectors, fire extinguishers, tub grips, child safety gates, etc). Any interested family in the service unit is eligible for a comprehensive home safety assessment upon request. They had to discontinue distributing fire extinguishers because they were too expensive. A year ago, the program began working with the department of health on developing a computerized home safety inventory.

Start/finish

October 1984/ongoing.

Target population

Native Americans living in the service area or admitted to the Indian Health Service caseload. That is, any interested family residing on the reservation. Families involved with the public health nursing and home care programs were particularly targeted. Other outreach efforts covered elders and young families.

Scope

Size: 6,000 individuals. *Reach:* 4,500 individuals.

Evaluation and follow-up

The department of health has begun entering data from the home safety surveys into a computer for surveillance.

Initially, follow-up was conducted formally, but now people know that if they have a problem they can contact staff.

What to do differently	Program is still ongoing.
What worked well	Continued reinforcement to encourage persons to consistently assess their homes for the safety of their families. Making home safety equipment readily available.

Minnesota Department of Health/Injury Prevention Program

Contact

Laurel Briske, Nurse Consultant/Project Director
Minnesota Department of Health/Injury Prevention Program (MIPP)
717 Southeast Delaware Street
Minneapolis, MN 55440
(612) 623–5202

Partners

Department of Public Safety; city and county public health departments; state fire marshal division; Minnesota SAFE KIDS; American Red Cross, local fire departments; Maternal and Child Health Special Project (grant); state community health program (grants); Injury Prevention Program (minigrants); Centers for Disease Control and Prevention (grant); community organizations (smoke detectors).

Program

The MIPP developed, implemented, and evaluated a comprehensive Home Safety Checklist Program in communities throughout Minnesota. As part of this program to reduce injury risk to children and the elderly, community health agencies educated families about fire-related burn hazards and installed smoke detectors and other safety devices in homes where they were needed. Several successful methods for using the home safety checklist have been developed, pilot-tested, and evaluated. The most effective method continues to be the home inspection performed by a public health professional.

In related activities, the MIPP provided educational programs for the public, health care professionals, parents of young children, and senior citizens. Materials developed included curriculum, slide shows, brochures, and pamphlets.

Start/finish

October 1990/ongoing.

Target population

Families being visited by public health nurses in communities across Minnesota, usually the low-income, the elderly, and minority groups including Native Americans.

Scope

At least one home safety project has been implemented in nearly all of Minnesota's 87 counties.

Evaluation and follow-up

The Home Safety Checklist Program collects data about smoke detector installation and operability. Program staff have been able to ascertain and enhance the prevalence of functioning smoke detectors in populations in which the checklist has been used.

Public health nurses make follow-up visits to homes where smoke detectors were placed to determine maintenance status and current working conditions.

What to do differently	Track fire-related injuries through a surveillance system.
What worked well	Minigrant program to purchase supplies for agencies. Collaboration with fire and community health agencies. Public health nurses reached families by integrating the program into home visits.

St. Paul Department of Fire and Safety

Contact

Paula Peterson, Public Education Officer
St. Paul Department of Fire and Safety
100 East 11th Street
St. Paul, MN 55101
(612) 228–6203

Partners

The fire department (staff, smoke detectors, batteries); Minnesota Safety Council (smoke detectors); Tobacco Institute (smoke detectors); Eveready (batteries); Firefighters Local 21 (smoke detectors, installation); American Red Cross, Department of Health (assisted with Project Fire Wise); Local 110 of International Brotherhood of Electrical Workers, National Electrical Contractors Association (hardwired detectors).

Program

Because one- and two-family dwellings are not inspected, it is difficult to enforce the state law requiring smoke detectors in all dwellings. Project Fire Wise grew from a St. Paul program to a statewide program. Mobile elderly are targeted through church groups and the homebound through visiting nurses. Free battery-operated smoke detectors and batteries are installed, and occupants are taught about escape plans. Reminders are sent to all recipients to change batteries yearly and to practice their home escape plans.

The project has three related activities:

Program for low income. Through cooperation with Local 110 of International Brotherhood of Electrical Workers and the National Electrical Contractors Association, hardwired smoke detectors are installed for $50 for income-eligible residents. A certified/licensed electrician performs the installation. Hardwired smoke detectors are required by a city ordinance, which is enforced through Truth in Housing mechanisms whenever a home is sold.

Programs for children. Activities such as Family Fun Night and Safety Camps are held in high-risk neighborhoods. Juvenile fire setters intervention is available. Follow-the-Footsteps is a program for preschool and kindergarten-aged children, whereby letters go home with kids in the 39 schools to inquire about the presence of smoke detectors in the home; detectors are installed if necessary.

Program for seniors. Through Project Fire Wise—Fire and Burn Prevention for Seniors, battery-operated, hardwired smoke detectors are installed in the residences of older adults.

Start/finish

October 1989/ongoing.

Target population	Low-income, high fire-risk families with children, and the general population. The $50 installation price (usually $125) for hardwired smoke detectors is available on the basis of a qualifying income level. Project Fire Wise targets the elderly.
Scope	Information not provided.
Evaluation and follow-up	The fire department conducted a process evaluation to document the number of smoke detectors distributed and installed. An outcome evaluation was also performed to determine the overall effectiveness of the smoke detector program. Detector performance was measured. A database on smoke detector recipients is kept. Longitudinal follow-up is done via postcards. Parents of children enrolled in the fire play intervention program were interviewed during a second required appointment, whether a smoke detector was installed or not. Apartment owners were required to document testing and maintenance.
What to do differently	Tighten pre- and post-intervention observation. Improve data gathering.
What worked well	Fire department, voluntary and public health agencies, labor organizations, and citizen groups working toward a common goal.

Nassau County Department of Health

Contact

Lucille Weinstein, MD, MPH, Director
Injury Prevention and Control
Nassau County Department of Health
240 Old Country Road
Mineola, NY 11501
(516) 571–3442

Partners

New York State Department of Health Disabilities Prevention Branch; Healthy Neighborhoods Program; Kiwanis International Foundation; local fire departments; SAFE KIDS (discounted smoke detectors).

Program

The program was prompted by a request for a proposal from the Disabilities Prevention Branch of the New York State Department of Health. The Healthy Neighborhoods Program project was already conducting door-to-door safety inspections.

Door-to-door canvassing was completed in a high-risk area of Nassau County. Program staff checked for the functional status and placement of smoke detectors in the homes. New batteries were installed on the spot if needed. For families without the correct number of smoke detectors, names, addresses, and telephone numbers were referred to the Kiwanis. Through Kiwanis contacts, the local fire department went back and installed smoke detectors in all the homes referred.

In related activities, program staff checked hot water heater temperatures to prevent scald burns. Flyers provided information about the importance of burn prevention and the role of smoke detectors.

Start/finish

March 1993/ongoing.

Target population

The entire village of Roosevelt, listed by the census as a poverty tract.

Scope

Size of target population: 3,873 households.

Evaluation and follow-up

The Nassau County Department of Health is assessing the number of detectors installed, the percentage of homes reached in target areas, and the number of batteries installed. Staff will also seek to determine what percentage of those detectors installed are still functioning and track the number of burn injuries that occur.

Homes were revisited to determine what percentage of the smoke detectors installed were still functioning.

What to do differently	Obtain a stronger commitment from a group to install the smoke detectors.
What worked well	Publicity through door-to-door flyers and through a local union newspaper.

New York State Department of Health

Contact	Jeff Simon, Manager Injury Control Program New York State Department of Health ESP Corning Tower Albany, NY 12237 (518) 473–1143
Partners	Local Weatherization Assistance Programs (personnel); Centers for Disease Control and Prevention and State of New York Department of Health (funding); Federal Bureau of Maternal and Child Health (3–year grant).
Program	The mission of the Weatherization Assistance Programs—to reduce home energy costs, improve heating efficiency, repair and replace windows and doors, perform on-site energy audits, and repair furnaces and boilers—dovetailed with burn prevention initiatives in a number of ways. Particularly valuable was the comprehensive liability insurance that these programs carry, their staff's knowledge of prevention issues, their access to hard-to-reach high-risk populations, and the fact that they sometimes employ building contractors to correct deficiencies at no cost to the client. Thirty-nine upstate Weatherization Assistance Programs serving rural populations were invited to participate in a pilot project with the Injury Control Program, resulting in a comprehensive burn injury prevention demonstration project (in 10 target counties and 3 control counties) for low-income rural families with children under the age of 15 years. Participating agencies conducted room-by-room pre- and post-observational surveys for burn risks, corrected dangerous conditions, distributed educational materials, and mobilized community networks of agencies and volunteers. In related activities, burn injury prevention kits were distributed at public health clinics. The kits contained a smoke detector and battery, a 9-volt replacement battery, three refrigerator magnets with burn prevention messages, a coloring book for kids, and a hot tap water temperature gauge.
Start/finish	January 1988/ongoing.
Target population	Low-income families with children under 15 years of age.
Scope	A total of 9,000 detectors and 900 batteries were installed or distributed; temperatures on 750 water heaters were lowered; 35 antiscald devices were installed; and 4,000 burn injury prevention kits were distributed.
Evaluation and follow-up	Between 1 and 12 months later, the interviewers resurveyed households and spoke to the original persons interviewed.

What to do differently	Collect more baseline data; conduct more training.
What worked well	Installations and follow-up.

Cherokee County Health Department

Contact	Jill McLees, Health Educator Cherokee County Health Department 206 Hilton Street Murphy, NC 28906 (704) 837–7486
Partners	Local Fireman's Association and 13 local fire departments (volunteers); Andrews Senior Center Director (participants); Centers for Disease Control and Prevention (funding); the Injury Prevention Branch (smoke detectors).
Program	Through the Sound of Security (S.O.S.) program, smoke detectors were distributed to the public through the health department. The plan was to install 1,000 smoke detectors in eligible households and conduct fire safety checks in each home. Personnel from 13 local fire departments volunteered to install smoke detectors and conduct a fire safety check. A knowledge survey was administered to a random sample of 500 of the smoke detector recipients before the intervention and again 6 months after the intervention. Objectives were later revised because of an initially poor response rate.
Start/finish	July 1990/June 1991.
Target population	Low-income, elderly, and/or rural residents. Because of an initially low response rate, detectors also were distributed for self-installation at various high-traffic sites and through the health department, and guidelines were relaxed.
Scope	*Size of target population*: 1,900 households. *Reach*: 849 households that received smoke detectors.
Evaluation and follow-up	569 detectors were installed (189 percent of goal), and 383 fire safety checks were conducted (128 percent of goal). Homes that had received smoke detectors through the health department were later called to determine whether the detectors had been installed. Follow-up was conducted 1 year later on a sample of homes (approximately one-third of the total) to determine if detectors were working. Batteries were replaced if necessary.
What to do differently	Decrease the amount of paperwork involved for the volunteers.

What worked well

Fire department staff felt the program assisted them in becoming acquainted with their district and community needs, as well as in identifying high-risk homes.

Gaston County Fire Marshal's Office

Contact	Paul Wilkinson, Deputy Fire Marshal Gaston County Fire Marshal's Office P.O. Box 1578 Gastonia, NC 28053 (704) 866–3350
Partners	Gastonia United Firefighters Association; Gaston County Firefighters Association; Lowes Home Improvement Company (smoke detectors at cost); Gaston County Health Department (minigrant for detectors for persons with impaired hearing).
Program	The program was initiated by the Board of Directors of the Gaston County Firefighters Association after three children died in a November 1992 mobile home fire. The mobile home was not equipped with a smoke detector. There is a large population of mobile home residents in Gaston County, and they are at high risk for fire. Through referrals from fire and health care workers, 2,147 smoke detectors have been distributed. Persons wanting smoke detectors call the fire marshal's office, and the request is referred to the fire department. In related activities, the North Carolina Jaycees bought the *Learn Not to Burn* curriculum, and the health department grant provided teacher training for the fourth-grade level.
Start/finish	January 1993/ongoing.
Target population	All Gaston County residents, including the hearing impaired.
Scope	*Size of target population*: 65,000 households. *Reach:* 2,147 smoke detectors distributed.
Evaluation and follow-up	Follow-up was conducted by the Gaston County Firefighters Association through a telephone survey of residents who had requested smoke detectors.
What to do differently	One or two fires occurred in homes where the fire department had installed smoke detectors but residents had removed the batteries. This points out the need to ensure that batteries are fully seated and that home owners are advised not to remove them.
What worked well	Involvement with the health department.

Guilford College Fire Department

Contact

Lieutenant Alan Cagle, M.P.A.
Guilford College Fire Department
6001 Old Oak Ridge Road
Greensboro, NC 27410
(910) 668–2158

Partners

Guilford County Fire Protective Association; Guilford County Fire Prevention Committee; Home Builders Association (smoke detectors); Walmart (current sponsor); local civic organizations; Firefighters Burned Children Fund and Jaycees (smoke detectors for the hearing-impaired).

Program

Guilford County Fire Protective Association consists of 25 separate fire districts that cooperate through the Association. . .

In the late 1970s, Guilford County secured several hundred smoke detectors from the Home Builders Association and offered a program to all 25 districts. Personnel canvassed door-to-door in targeted neighborhoods (low-income, older homes, elderly people) checking smoke detectors. If no detectors were present, the canvassers asked whether they would like the fire department to install one. Covering one neighborhood at a time, the department then put one smoke detector and battery in each home (two in a two-story home).

In related activities, the Guilford County Fire Prevention Committee is working with the Guilford County Communication Center for the Deaf to provide specially designed smoke detectors to hearing-impaired residents of the county and city.

Start/finish

Residential: late 1970s/ongoing; *Hearing impaired:* April 1994/ongoing.

Target population

Low-income, elderly persons.

Scope

Phase 1: Several hundred smoke detectors were installed (Home Builders Association sponsorship), and replacement batteries were purchased and made available. *Phase 2:* 100 detectors were donated (Walmart sponsorship). *Phase 3:* 50 detectors for persons with hearing impairments have been donated (civic organizations, Firefighters Burned Children Fund, and Jaycees sponsorship).

Evaluation and follow-up

Because some districts kept better records than others, the county committee now requires standardized record keeping so that future analysis will be possible.

Each fire district is responsible for maintaining the smoke detectors installed previously, as well as any future installations.

What to do differently	Expand this as a project for the entire fire department. Make more personnel available. Ensure that each district has a liaison to the committee.
What worked well	The door-to-door aspect. Meeting people, especially the elderly, and reestablishing a sense of community (personal contact produced a greater impact than a coupon or a pamphlet). Contact through community churches. Media campaigns.

Oklahoma State Department of Health

Contact

Malinda Reddish Douglas
Injury Control Division–0307
Oklahoma State Department of Health
1000 Northeast 10th Street
Oklahoma City, OK 73117–1299
(405) 271–3430

Partners

City and county departments of health (personnel, housing, software, etc.); city fire department and American Red Cross (personnel, transportation); Centers for Disease Control and Prevention (grant); Baptist Burn Center, Children's Hospital of Oklahoma, Kiwanis, Boy Scouts, firefighters associations, department of corrections, hospitals, utility companies, churches, and schools.

Program

The purpose of the program was to assess the efficacy of a major smoke alarm giveaway in reducing residential fire injury in a targeted area with the highest residential fire-related injury rate in the state. The project evaluated four methods of soliciting participation, two methods of distributing alarms, and the appropriate use and function of alarms installed by participants and project representatives. Of the four participant solicitation methods evaluated, the door-to-door canvassing method resulted in a significantly greater number of smoke alarms being distributed to homes in need. In an on-site household survey, of the smoke detectors that residents claimed were working, only 80 percent were actually functioning; those that were not functioning needed batteries, installation, and/or replacement.

Start/finish

May 1990/November 1991; follow-up is ongoing.

Target population

Inner south Oklahoma City was targeted for the intervention because of its high residential fire-related injury rate.

Scope

Reach: 10,000 smoke detectors were installed in the four Zip code areas.

Evaluation and follow-up

In-person household inspections of participant homes were conducted at 4 months (random sample), 1 year (all participant homes), and 4 years (random stratified sample). Comparisons were made of residential fire-related injuries. At the 48-month follow-up, a decline in the rate of injury per 100 fires (73 percent) was seen in the target area compared with a 30 percent increase in the injury rate in the rest of the city. An estimated 39 injuries and deaths have been prevented in this area. A preliminary cost-benefit analysis suggests that for each dollar spent on the intervention, $20 dollars in averted health care costs and productivity loss were saved.

Two years after the initial giveaway, postcards were sent to all participants reminding them to change batteries and offering additional free alarms.

What to do differently	Establish a central repository, stricter inventory, and compliance with giveaway guidelines.
What worked well	Collaboration between agencies/organizations for a large pool of human and material resources. Use of partner agencies with good public appeal and reputation.

Rhode Island Department of Health

Contact	Christine Brackett, Health Educator Rhode Island Department of Health Injury Prevention Program Room 408, Cannon Building 3 Capitol Hill Providence, RI 02908 (401) 277–2901
Partners	Providence Fire Department (trained screeners in fire safety and smoke detector installation); the child welfare agency (child abuse identification training); Rhode Island SAFE KIDS (smoke detectors); community-based agencies in minority communities (staff recruitment); Centers for Disease Control and Prevention (grant); Division of Family Health; Department of Health Laboratory (processing of lead tests).
Program	The Division of Family Health operated a door-to-door screening program to detect lead poisoning in children 6 years of age and younger. The program targeted primarily low-income urban residents, the same population the Injury Prevention Program wished to target for fire injury prevention. Many of the streets where fatal house fires had occurred were visited by lead program staff. The Division of Family Health was willing to expand its program to include both lead screening and fire injury prevention components. The program hired multicultural, bilingual staff and trained them in both lead screening and burn prevention. Staff canvassed door-to-door in high-risk areas throughout the state. Smoke detectors were installed on the spot as needed.
Start/finish	June 1991/August 1993.
Target population	Low income urban families with children under 6 years old.
Scope	By 1992, over 2,100 households had been visited, 524 smoke detectors installed, and 168 batteries replaced.
Evaluation and follow-up	Surveyors visited a sample of the houses screened in the previous year to check the status of smoke detectors.
What to do differently	Ensure that training covers cultural sensitivity, child abuse awareness, the importance of data collection, and the knowledge and skills needed to screen for lead and fire risk. Inform communities in advance. Concentrate on high-risk areas. Prepare educational materials for a low-literacy level and in numerous languages with pictures and diagrams.
What worked well	Door-to-door canvassing and installation. Working with a program that already had community access and acceptance.

Programs in Twenty-Eight Other States

Anchorage Fire Department

Contact

Cleo Hill, Inspector
Fire Prevention
Anchorage Fire Department
1301 E. 80th
Anchorage, AK 99508–2942
(907) 267–4960

Partners

Anchorage Firefighters Union (smoke detectors); American Society of Safety Engineers; SAFE KIDS; Providence Hospital (volunteers and literature); Firefighters Local 1264 (smoke detectors and batteries); American Society of Safety Engineers.

Program

Over the years, the union has provided free smoke detectors for citizens. However, in 1994, we had 12 fire fatalities, 10 of those in mobile homes. In response to these fire deaths, the partners designed a smoke detector installation program which ensured that detectors were properly installed and located in mobile homes. Free smoke detectors and batteries were installed for mobile home residents.

Off-duty volunteers canvassed door-to-door in mobile home parks and tested existing detectors, changed batteries, relocated detectors, and installed new ones. The public was educated in home fire safety. Door hangers that described the program were left when no one was home.

In related activities, on-duty fire crews assisted with public education both in the schools and in the homes. They also provided free safety inspections.

Start/finish

October 1994/May 1995 and Sept 1995 (Saturdays)/ongoing.

Target population

The majority of participants were mobile home residents, although the program was open to anyone who wanted a smoke detector.

Scope

Occupants in 7,000 trailers.

Evaluation and follow-up

A tracking system has been established to gather statistics. When the program first started, 95 percent of the mobile homes visited had no working detector or no detector. At the end of the program in May, that percentage dropped to 15 percent. We believe this was because of increased public awareness from the program.

Plans were to contact by phone each resident and remind them to test the detectors and change the batteries in October 1995. Public service announcements in the media will serve as a reminder.

What to do differently	Start the program earlier. Ask the telephone company to include literature in its mailings so that we can get more volunteers.
What worked well	Door-to-door canvassing, installing the detectors in the correct locations, making one-on-one contact with the residents.

Arkansas Department of Health

Contact

Buff Easterly, Director
Office of Chronic Disease/Disability Prevention
Arkansas Department of Health
4815 West Markham, Slot 3
Little Rock, AR 72205
(501) 661–2666

Partners

Arkansas SAFE KIDS; Little Rock Fire Department (staff); Stephens/Oak Forest Neighborhood Alert Center (staff); St. James United Methodist Church (smoke detectors); International Association of Professional Black Firefighters (volunteers).

Program

Arkansas ranks fourth in the nation in mortality from fires. Unlike the national trend, which shows a steady decline in mortality from residential fires over the last decade, Arkansas mortality rates are not declining.

The project was undertaken by the Office of Disability Prevention at the Arkansas Department of Health as part of its ongoing efforts to reduce injury morbidity and mortality. The Little Rock Fire Department agreed to allow nine on-duty firefighters to install detectors. The firefighters assigned to the project would come from the station that normally serves the target area and two stations that serve adjacent areas. Community support for the project was mobilized by working with the facilitator of the neighborhood alert center in the neighborhood in which the target area was located. Advance notice of the project was mailed to each of the addresses in the target area 10 days before the installation date. Residents received a letter and a flyer informing them of the upcoming project, as well as a liability release form. Two days before the installations were to take place, flyers were handed out door-to-door to remind residents of the project.

Start/finish

June 1994/June 1994

Target population

Inner-city neighborhoods that reported high numbers of residential fires between July 1, 1991, and October 7, 1993.

Scope

Size of target population: 152 households.

Evaluation and follow-up

The Arkansas Department of Health has evaluated the number of homes reached, the number of detectors installed, the number of batteries replaced, the number of existing detectors in homes, when the battery was last checked or replaced, and what age groups were served. Collection of data on fire runs per district and fire deaths and injuries is also performed.

Door hangers were left at homes where residents did not respond to firefighters. The door hangers indicated that a smoke detector could be picked up at the local Neighborhood Alert center. A 6-month follow-up was conducted for homes that had received detectors to replace batteries.

What to do differently Because the selected area included inner-city neighborhoods, project staff had difficulty contacting residents by mail. In the future, flyers should be used and handed out door-to-door 2 weeks before and again 2 days before installation takes place.

What worked well Collaboration between the interested groups was essential. In the future, project staff would like to focus on expanding this collaboration.

California Area Indian Health Service

Contact	Byron Bailey, MPH, Injury Prevention California Area Indian Health Service 1825 Bell Street, Suite 200 Sacramento, CA 95825–1097 (916) 566–7001
Partners	Thirty-two Indian health programs; U.S. Public Health Service, Indian Health Service (smoke detectors).
Program	Residential fire death rates among Native Americans are more than twice the rates among whites. Correctly installed, used, and maintained smoke detectors are the single most effective method of saving lives in residential fires. Over 8,000 smoke detectors have been provided to 32 California Indian health programs since 1988. Indian health program personnel, in turn, install the units or provide instruction on proper installation to the recipients. Annual education activities are conducted to remind recipients to replace batteries, or, in some cases, Indian health program personnel inspect the units and replace batteries (or sometimes just distribute batteries). Informational brochures are also distributed.
Start/finish	October 1988/ongoing.
Target population	All eligible recipients of Indian health care services in the region.
Scope	The 190,000 people residing in the target area.
Evaluation and follow-up	Progress reports were required from tribal health programs. Some Indian health programs checked for proper installation of units when home visits were made by public health nurses and community health representatives.
What to do differently	Conduct an evaluation component (pending data and staffing availability).
What worked well	Smoke detector distribution plan.

Colorado Springs Fire Department

Contact

Marta Dubay
Colorado Springs Fire Department
801 Prospect Lake Drive
Colorado Springs, CO 80910
(719) 578–7025

Partners

Apartment Association of Colorado Springs and Cable Vision of Colorado Springs (smoke detectors); Energizer and Eveready (batteries); First Alert (smoke detectors at cost); grants supported the project.

Program

Firefighters from the engine company at the busiest station in Colorado Springs felt they had a very good inspection program throughout the city for businesses, schools, and hospitals. However, those were not the types of structures where lives and property were being lost to fire. Residential fires were the leading cause of loss to fire, and firefighters serving low-income areas noticed many homes without smoke detectors. The firefighters therefore came up with the idea of conducting home inspections.

In the pilot program, firefighters in the Station 8 area went door-to-door and put door hangers on approximately 350 homes. The door hangers carried fire safety information and a telephone number to call if the occupants wanted a free home fire safety inspection. About 10 percent of the home owners called back for an inspection, which included giveaways of smoke detectors and batteries when needed.

Start/finish

October 1993/January 1994.

Target population

Lower income homes and older neighborhoods in the Station 8 area were targeted first. The program is now citywide (16 stations covering 158 square miles).

Scope

Size of target population: 350 households. *Reach*: 350 households.

Evaluation and follow-up

The Colorado Springs Fire Department sampled 10 percent of persons who had been offered the program. Different questions were asked of participants and nonparticipants.

The fire department plans to develop special materials for the elderly and for persons residing near the wildland/urban interface, which is prone to special fire hazards.

What to do differently Rather than using door hangers, program staff are now using plastic bags containing fire safety brochures that can be hung on doors.

What worked well Having firefighters canvass door-to-door to deliver the information and install the smoke detectors, rather than using civilian volunteers, was excellent public relations for the fire department.

Fairfield Fire Department

Contact

Daniel Gardiner, Chief
Fairfield Fire Department
140 Reef Road
Fairfield, CT 06430
(203) 254–4713

Partners

Alliance for Fire and Emergency Management; local media.

Program

A 1981 local ordinance requires smoke detectors in all new and existing dwellings. The Life Safety Code requires hardwired smoke detectors for new dwellings. Yet in January 1992, a structure fire occurred in a residence without smoke detectors, and several college students were injured.

For some time, fire department policy has required that firefighters never leave the scene of a fire unprotected. However, the fire department also has become more proactive in enforcing existing legislation. Since May 1992, department personnel have surveyed 22,506 one- and two-family dwellings, inspecting them for compliance with the local smoke detector ordinance. The fire department canvassed door-to-door to request voluntary compliance with the ordinance. Smoke detectors were installed (free of charge for low-income families and elderly). If voluntary compliance could not be obtained, police were informed of infractions.

Start/finish

April 1992/April 1994.

Target population

Inspection: all one- and two-family dwellings. *Free smoke detectors:* low-income and elderly.

Scope

Size of target population: 22,506 households. *Reach*: 18,042 households.

Evaluation and follow-up

The fire department measured level of effort and compliance. The database of home inspection results can be cross-referenced with fire reports. Baseline measures indicated that 60 percent of homes were not in compliance with the 1981 ordinance.

The fire department staff plan to repeat the canvassing once they have completed the first full-town canvass.

What to do differently

No changes envisioned.

What worked well

Night and weekend visits. Massive free media campaign, which helped reduce refusal rate.

New Opportunities for Waterbury

Contact	Mary Kate Gill, Director Elderly Services New Opportunities for Waterbury (NOW) 232 North Elm Street Waterbury, CT 06702 (203) 575–9799
Partners	Western Connecticut Area Agency on Aging (smoke detectors); Waterbury Fire Marshal; State Office of Health Services; NOW (New Opportunities for Waterbury); Duracell (batteries).
Program	NOW identified the need for a comprehensive home safety program for older residents that included checking for operational smoke detectors. NOW is a Community Action Agency. Through the Chore Program, workers visit the homes of the elderly to clean and provide other services. NOW trained these workers to do home safety assessments. The smoke detector program is one component of the overall home safety program. Chore Program workers install smoke detectors or test existing detectors and provide batteries when necessary. The client is asked to provide reimbursement for supplies, if possible.
Start/finish	August 1993/ongoing.
Target population	Adults over 59 years old.
Scope	*Size of target population*: 400 households. *Reach*: 250 households.
Evaluation and follow-up	The Western Connecticut Area Agency on Aging evaluated the overall programs—targets and processes—for the entire home safety program.
What to do differently	The program is too new to say what should be changed.
What worked well	The Client Emergency Fund is a key to the success of this program. It removes the barrier of cost for persons who cannot pay.

City of Pinellas Park Planning Division

Contact	Bob Bray, Principal Planner City of Pinellas Park Planning Division 6051 78th Avenue P.O. Box 1100 Pinellas Park, FL 34664 (813) 541–0704
Partners	Pinellas County Community Development Department (funding); Pinellas County Consortium for Community Development; Community Development Block Grant (1,000 smoke detectors).
Program	The program was intended to get smoke detectors into the homes of the elderly, the disabled, and low- to moderate-income households. Fire inspectors volunteered to conduct home safety inspections, install smoke detectors, and provide a *Home Audit Handbook* to each household.
Start/finish	October 1993/September 1994.
Target population	Mobile home residents were identified and informed of the program through their utility bills. Elderly (aged 65 years and older), disabled (including those with hearing impairments), and low-income (proof of income required) individuals were targeted, but anyone who requested a smoke detector received one free of charge. The program's motto was "Never say no."
Scope	Information not provided.
Evaluation and follow-up	The program conducts follow-up of the installations and has documented three occasions in which the newly installed smoke detectors were credited with alerting residents to a dangerous situation. Flyers were distributed to remind people to check their detectors and replace their batteries.
What to do differently	Advertise the program very differently. Target everyone rather than just specific target groups.
What worked well	The fire inspectors volunteered to install the smoke detectors, and all recipients loved this feature of the program.

St. Petersburg Fire and Rescue

Contact	Thomas Young, Deputy Fire Marshal St. Petersburg Fire and Rescue 400 9th Street South St. Petersburg, FL 33701 (813) 893–7709
Partners	Federal Community Development Block Grant (smoke detectors); SAFE KIDS Coalition (smoke detectors); Eveready (batteries); aluminum can recycling program and civic groups ($5,000).
Program	Fire incident reports revealed that most fires were occurring in low-income neighborhoods in homes without smoke detectors. An alarming number of homes were unprotected. Firefighters schedule home visits to install detectors, change batteries, and conduct pool and home safety surveys. While conducting the home visits, department personnel give away plug protectors and listings of important emergency numbers.
Start/finish	October 1991/ ongoing.
Target population	Initially targeted low- to moderate-income households, but later expanded program to the general population. Separate detector program targeted families with children under 5 years of age.
Scope	In 1994 alone, installed 3,000 smoke detectors.
Evaluation and follow-up	The department maintains records on home visits and installations. After each first in-home contact is made, names and addresses are entered into a computer. Reminders are mailed annually. Staff also perform follow-up visits for smoke detector maintenance.
What to do differently	No changes envisioned.
What worked well	Using free smoke detectors as a "carrot" that allows firefighters to enter homes and perform safety surveys.

SAFE KIDS of Savannah

Contact

Jane Garrison, Program Coordinator
SAFE KIDS of Savannah
P.O. Box 14257
2011 Eisenhower
Savannah, GA 31416–1257
(912) 353–3148

Partners

Savannah Fire Department; Coastal Empire; Boy Scouts of America; Savannah Police; Chatham Health Department Women, Infants, and Children (WIC) program; National SAFE KIDS Coalition (administrative costs and smoke detector research materials); BRK Electronics (smoke detectors and batteries); health department (office space).

Program

SAFE KIDS of Savannah was one of 10 coalitions across the country funded through the 1993 National SAFE KIDS Campaign's Project Get Alarmed. In conjunction with the U.S. Fire Administration, smoke detectors were distributed using a variety of methods. WIC clients were given smoke detectors at the health department, and Boy Scouts delivered the smoke detectors directly to eligible homes as part of an Eagle Scout project. Police officers, firefighters, and the SAFE KIDS coordinators delivered and installed smoke detectors as well. Six months later, follow-up home visits were made to determine whether the detectors were correctly installed and working.

In related activities, the group conducted a similar project locally in 1994. A Fire Station Open House was held in a low-income neighborhood. Food, brochures, information, and free smoke detectors were provided (but not installed). Each recipient was required to sign a liability waiver/release form.

SAFE KIDS of Savannah helps with a variety of other local fire prevention activities. Coalition members work with fire departments, furnishing fire safety materials, developing press releases, and soliciting media coverage. The group provides volunteers as needed for health and safety fairs and other special events, such as the Georgia Fire Safety House (a hands-on display for elementary school children).

Start/finish

March 1993/ongoing.

Target population

Low-income areas and mobile homes. Special target populations included families with children, WIC clients, and a specific neighborhood around Savannah Fire Station #7. The target population was reached through door-to-door canvassing, referral from WIC, and self-referral.

Scope

About 200 smoke detectors and 50 batteries were distributed in 1993 alone.

Evaluation and follow-up	A follow-up survey was conducted by SAFE KIDS of Savannah, and results were forwarded to National SAFE KIDS. Volunteers returned to homes that had received smoke detectors to determine whether they were working.
What to do differently	Improve records of initial contact. When addresses were recorded for mobile homes, they were difficult to locate on follow-up.
What worked well	Good tool for collecting data; good way to involve youths; the volunteers who were dedicated to the project.

University of Georgia, Family and Consumer Sciences

Contact

Janet Valente, Educational Program Specialist
University of Georgia, Family and Consumer Sciences
Georgia Center for Continuing Education, Suite 288
Athens, GA 30602
(706) 542–6632

Partners

University of Georgia, Continuing Education Department; Division of Public Health, Department of Human Resources Older Adult Unit; Southwest Georgia Community Action Council; Health and Human Services, Rural Health (personnel).

Program

Under a 3-year injury prevention grant, Colquitt and Thomas Counties conducted a pilot program involving home safety assessments to rural areas. Smoke detector installation and maintenance became one of the program's areas of primary focus. The program received a second 3-year grant for a project serving rural communities of northeast Georgia; this project has been enhanced by a volunteer and an intergenerational component.

A counselor visited homes on the basis of referrals and interviewed the client using a 70-item environmental and a 60-item personal assessment covering various areas of home and health safety. An evaluation of the home was then made to determine areas of need. As necessary, smoke detectors, handrails, ramps, steps, and durable bathroom equipment were installed or repaired. Other safety devices included night-lights, grab bars, flashlights, safety strips for bathtubs, tub mats, and transfer seats.

Start/finish

September 1991/September 1994.

Target population

Residents who are 45 years or older. Most were identified through group presentations or were referred by their families or a consortium of social service agencies and other interested parties that included health departments, family services agencies, and a surgical equipment supplier.

Scope

Size of target population: 4,000 households; 10,000 persons. *Reach*: 1,200 households; 2,300 individuals. Some 600 to 700 visits were performed during the 3-year grant period.

Evaluation and follow-up

Counselors performed an evaluation. Files were pulled and reevaluated on 75 previously served clients. Twenty-five clients required additional help, 25 were stable, 21 could not be located, and 4 had died.

Once the work was completed, a final inspection was performed to finalize each client's file. A counselor sought to determine whether the client understood and was acting on evaluation suggestions. At this time, all equipment was checked to ensure proper installation and operation.

What to do differently	Recruit more contractors and counselors.
What worked well	Everything.

Post Falls Fire Protection District

Contact

Ramona Baker, Fire Prevention Public Education Specialist
Post Falls Fire Protection District
P.O. Box 2
Post Falls, ID 83854
(208) 773–2922

Partners

Post Falls Fire District (stickers, smoke detectors); Kiwanis (smoke detectors).

Program

According to the 1992 state fire marshal's report, approximately one-half of the residential fires reported in Idaho occurred in residences not protected by a working smoke detector.

The Fire Protection District and Kiwanis provide smoke detectors to families of newborns at local hospitals. New mothers receive a certificate for a free smoke detector and free installation by a trained firefighter.

The Door-to-Door Fire Protection program targets mobile home parks. Firefighters canvass door-to-door to find out if they have a working smoke detector. If they don't, we install one for them on the spot. If they have a smoke detector, we ask them to verify that it works. If it doesn't work, we install a new battery. We found that more than half of the residents in mobile homes either do not have a smoke detector or they have a smoke detector that is inoperative. Our goal is to get 100 percent of residents living in mobile home parks smoke detectors by the end of the year.

The Fire District is working with the local Meals on Wheels program to provide smoke detectors to their clients. Meals on Wheels drivers are trained to check smoke detectors. If a client needs a smoke detector installed or batteries replaced, a referral is made to the fire department. While in the homes, firefighters provide information on home escape plans and "Test Your Smoke Detector" stickers.

In related activities, Idaho Gov. Cecil D. Andrus signed a proclamation designating the first Tuesday of each month as Test Your Smoke Detector Day. County and city officials also signed similar proclamations. Stickers for calendars are available and are distributed through schools, print shops, banks, and the fire station (with each smoke detector installed). Idaho is the 14th state to have such a proclamation, which the department learned about in a *Kansas Firefighter* newsletter article.

Start/finish

March 1994/ongoing.

Target population

Low-income individuals, senior citizens, the general population.

Scope

Information not provided.

Evaluation and follow-up

Recipients of free smoke detectors also receive free ongoing maintenance.

What to do differently	Get local businesses more involved.
What worked well	With help from the state fire marshal's office, the fire protection district mailed summaries of its fire prevention activities to most fire departments in the states.

Peoria Fire Department

Contact

Ernie Russell, Chief
Peoria Fire Department
505 NE Monroe
Peoria, IL 61603
(309) 672–8980

Partners

RJ Reynolds Tobacco Company (smoke detectors, replacement batteries, program literature, and market research services); the local K-Mart (smoke detectors); Community Development Block Grant (funding); Rossomando & Associates, Washington, DC (technical assistance).

Program

Frustrated by three less-than-successful attempts to offer free smoke detectors citywide, the Peoria Fire Department decided to develop a new program along the lines of a proven model. The Peoria program was implemented using the Community-based Fire Safety Program modeled on a highly successful 1987 program in Portland, Oregon. Fire fatality data revealed that one area of the city, with only 16 percent of Peoria's population, had accounted for 79 percent of fire fatalities between 1987 and 1990. Market research then pinpointed a major obstacle to outreach: Peoria's target neighborhood did not have an established infrastructure of organizations or individuals to support a community-based fire safety project. The fire department therefore decided to help build a coalition for fire safety and began by setting up a steering committee of community leaders for the program.

Start/finish

March 1992/ongoing.

Target population

Ten census tracts along the southeastern edge of Peoria at high risk for fire fatality. The area accounted for 79 percent of Peoria's fire fatalities, 60 percent of injuries, and 63 percent of structural fires between 1987 and 1990. Within the target area, churches and schools (K–6) were especially targeted for outreach.

Scope

A total of 1,000 smoke detectors were installed in the highest risk area of the city (about 7,500 households).

Evaluation and follow-up

Rossomando & Associates conducted an evaluation for which response patterns and pre- and post-program fire data were analyzed. One fire fatality occurred while the program was being developed, but none have occurred since then. For the first 18 months following the program's implementation, the target area accounted for just over 35 percent of residential fires in Peoria (as compared with 63 percent before the program).

What to do differently Through working closely with community activists on the steering committee, program staff learned that previous public fire education programs had failed because they did not last long enough. The fire department had to allow time to build credibility with residents, especially in a neighborhood where residents traditionally have not had good relations with city government in general.

What worked well Analyzing fire and market research data before implementing the program.

Beech Grove Fire Department

Contact

James Bright, Fire Chief
Beech Grove Fire Department
330 East Churchman Avenue
Beech Grove, IN 46107
(317) 782–4940

Partners

Local Lions Club (smoke detectors and batteries).

Program

The Beech Grove Fire Department has a two-pronged approach to reducing residential fires—legislation as well as inspection and enforcement. The Uniform Building Code requires smoke detectors in all new dwellings and hardwired smoke detectors in all multifamily dwellings with three or more units. The 1983 smoke detector ordinance requires a fire department inspection with every home sale or title transfer to ensure the presence of a working smoke detector; the department has completed 1,600 inspections.

Whenever they make a fire call, firefighters never leave a home without a working smoke detector. They either loan the detector or provide it free of charge. They also replace batteries and check current detectors for proper placement and operation whenever they make a fire call.

Start/finish

January 1983/ongoing.

Target population

General population.

Scope

Size of target population: 10,000 households.

Evaluation and follow-up

Since the 1983 Smoke Detector Ordinance was passed, two people have died in fires. Both fires were the result of arson, and convictions were made in both cases.

The department maintains records on where smoke detectors have been installed, and this information can be used for follow-up.

What to do differently

No change envisioned.

What worked well

Not leaving any residence without an operating smoke detector.

Cedar Rapids Fire Department

Contact	Natalie Kleise, Fire Safety Education Specialist Cedar Rapids Fire Department 222 Third Street NW Cedar Rapids, IA 52405 (319) 398–5212
Partners	Energizer (smoke detectors); local distributor (batteries).
Program	The Cedar Rapids Fire Department participated in the national program sponsored by the National Association of State Fire Marshals—the NASFM Challenge—which provided bulk quantities of free smoke detectors for distribution at the state and local levels. Localities were required to document how they identified their target populations, who received the detectors, and lives that were saved as a result. The fire department also took advantage of a program by Energizer that offered one free smoke detector for every 20 Universal Product Code (UPC) labels collected on Energizer batteries. The department conducted a citywide promotion, with help from the media, and collected enough UPC labels to receive 110 smoke detectors. Store clerks helped by suggesting to customers that they cut out codes while still in the store. The fire department also ran a battery installation project during one weekend.
Start/finish	December 1993/May 1995.
Target population	Nonrenters, low-income individuals (especially those with children), unemployed persons, and elderly persons.
Scope	*Size of target population*: 60,000 households; 33 schools. *Reach*: 70 households.
Evaluation and follow-up	The fire department conducted follow-up telephone calls to individuals to evaluate the program. Yearly reminders are sent to residents to check and change smoke detector batteries.
What to do differently	Consider scheduling the battery installation program on the weekend of the annual "Change Your Clock, Change Your Battery" promotion to increase participation.
What worked well	Cooperation of firefighters.

University of Iowa, Burn Treatment Center

Contact	Margery Amelon, Staff University of Iowa, Burn Treatment Center 200 Hawkins Drive Iowa City, IA 52240 (319) 356–2496
Partners	Iowa City Fire Marshal, SAFE KIDS Coalition, University of Iowa Burn Treatment Center; Children's Miracle Network (burn prevention kits); Kemper Corporation (scald cards); Eaton Corporation, firefighters, and the Bible School (smoke detectors).
Program	The Burn Treatment Center sees outpatients and inpatients with burns that are preventable and unintentional. During the months of October and February (in conjunction with Burn Awareness and Prevention months), smoke detectors shaped like dalmatian puppies are included for the parents of all newborns in a prevention package that is given out year-round. The prevention packet includes a scald prevention card, prevention literature, a refrigerator magnet with information on proper burn care, and electric outlet covers. The scald prevention card includes a temperature strip on the bottom with which to check hot water temperatures of up to 120 degrees Fahrenheit. The burn care magnet is geared to prevent further injury to minor burns that might occur through improper care.
Start/finish	October 1994/ongoing.
Target population	Newborns.
Scope	*Detectors shaped like dalmatian puppies:* 300 during October 1994 and February 1995. *Burn prevention kits:* 1,500 per year.
Evaluation and follow-up	The University of Iowa Hospital plans to mail follow-up postcards within a year of when the detector was distributed to assess parents' retention of knowledge and to determine whether smoke detectors are installed and functioning.
What to do differently	Secure additional funds so that detectors can be provided to all families of newborns.
What worked well	Information not provided.

Kansas SAFE KIDS Coalition

Contact	Jan Stegelman, Coordinator Kansas SAFE KIDS Coalition 900 Southwest Jackson Room 901 North Topeka, KS 66612 (913) 296–1223
Partners	Local SAFE KIDS Coalitions, National SAFE KIDS Campaign; United Way of Topeka, BRK Electronics, and Junior League of Topeka (smoke detectors); Preventive Health block grant (educational materials); Healthy Start (home visitors); Head Start and child care providers (conducted educational programs).
Program	Kansas is one of nine states without a smoke detector law for one- and two-family dwellings. Kansas ranks sixth as a state for fire deaths and tenth for fire injuries. An increasing number of deaths are among children 8–14 years of age. The Kansas SAFE KIDS Get Alarmed program operates smoke detector programs in Wichita, Topeka, Manhattan, Salina, Lawrence, and Holton. Through the program, volunteers from local community organizations distribute smoke detectors and replace batteries for low-income families. As participants in the National SAFE KIDS Campaign, the local program also helped support the introduction of smoke detector legislation. The legislation would make smoke detectors mandatory in single- and multiple-family dwellings. Some legislators worry about personal rights mandates as well as enforcement issues.
Start/finish	May 1992/ongoing.
Target population	Families already being served by a low-income program. Specifically, families with children under 5 years of age.
Scope	Six Kansas cities.
Evaluation and follow-up	Components of the program will be evaluated by the Kansas Department of Health and Environment as part of a fire/burn grant from the Centers for Disease Control and Prevention.
What to do differently	Will include purchase of smoke detectors at cost in next phase of program for persons who can afford it. Publicity should include the name of National SAFE KIDS Campaign.
What worked well	Using existing community programs that provide in-home services to target populations.

Louisville Division of Fire

Contact

Donald Cummins, Fire Marshal
Louisville Division of Fire
1135 West Jefferson Street
Louisville, KY 40203
(502) 574–3731

Partners

All city fire companies; city legislature (smoke detectors, batteries, and public education information); Louisville Fire Prevention Council; Kay Shaver Advertising Agency.

Program

In 1979, the city passed legislation requiring detectors in all rental properties. Fatalities dropped dramatically, but a significant pattern developed in owner-occupied dwellings.

In response to these fire fatalities, Operation Safe was started. With the goal of placing at least one smoke detector in each home, the city legislature set aside money to purchase smoke detectors and to provide public education. Firefighters canvassed door-to-door, checking existing smoke detectors for proper installation and operation. If the smoke detectors were inoperative, batteries were replaced free of charge. If no smoke detector was present, one was installed free of charge. Home safety inspections were also conducted if the resident desired. About 250 rental properties were found to be in violation of the smoke detector ordinance.

Start/finish

July 1986/ongoing (smoke detectors still available upon request).

Target population

All property owners (urban population).

Scope

Size of target population: 55,000 households. *Reach*: 55,000 households. In 1991, the department completed the citywide canvassing and began the process for a second time.

Evaluation and follow-up

Each month, the fire marshal reviews progress, assessing the number of fire responses, property damage, injuries, and deaths against data from the years before the program started. Evaluation measures include fire death rate, households with detectors, and anecdotes. Operation Safe has been credited with the downward spiral of deaths in Louisville. Fire deaths in the 1980s averaged around 12 per year but in the 1990s averaged only five deaths per year.

Information about recipients and the date of installation were entered into a database so that reminders about changing the batteries could be mailed.

What to do differently

No changes envisioned.

What worked well

Fire deaths and injuries were dramatically reduced. Public opinion of the fire service was enhanced and strengthened.

Kennebec Valley Community Action Program

Contact

Peter Duncombe, Housing Director
Kennebec Valley Community Action Program (KVCAP)
P.O. Box 1529
101 Water Street
Waterville, ME 04903
(207) 873–2122

Partners

Five volunteer fire departments, two state agencies, and a community action agency (formation of a community coalition); RJ Reynolds Tobacco Company (smoke detectors, replacement batteries, program literature, and market research services); Rossomando & Associates, Washington, DC (technical assistance).

Program

This program was implemented using the Community-based Fire Safety Program modeled on a highly successful 1987 program in Portland, Oregon. Essentially a smoke detector giveaway program, the intervention identified wood-burning and chimney fires as a leading cause of fire injuries and focused particularly on this issue in its fire prevention messages (customized brochures on wood-heating safety were distributed). KVCAP worked with the chiefs of five local fire departments. Volunteers were trained to install smoke detectors. Proclamations were made in each community to kick off door-to-door canvasses with program materials. About 500 volunteers participated. Special efforts were made to reach low-income participants in KVCAP energy assistance and Head Start programs. For example, in face-to-face interviews with applicants for its low-income heating assistance program, the agency asked about smoke detectors and provided free detectors in the homes of those who needed them; the detectors were installed by trained volunteers. KVCAP also disseminated information to clients in its day care, Head Start, senior, and rural transportation programs, all targeted to low-income residents. Excellent media coverage was obtained.

Start/finish

October 1992/December 1992.

Target population

Rural, low-income individuals and families in the towns of Skowhegan, Canaan, Pittsfield, Palmyra, St. Albans, and Hartland (Sommerset County). KVCAP's existing outreach mechanisms were used to reach low-income families.

Scope

About 7,000 households were targeted and reached; 800 smoke detectors were installed between October and December 1992, and another 200 detectors were installed after that.

Evaluation and follow-up	Rossomando & Associates conducted an evaluation during which fire data and response patterns were analyzed and a pre-and post-intervention survey was conducted. The survey was of limited value. At least one life has been saved as a direct result of this program. The town of St. Albans for the first time in its history did not have a single structure fire, and neighboring Hartland reported only one structure fire during the year after the program. Fire safety awareness generated by the program is credited with these successes.
What to do differently	Information not provided.
What worked well	An effective community-based coalition, which coordinated a program that otherwise would have been impossible to undertake.

Portland Fire Department

Contact

Gerald DiMillo
Portland Fire Department
380 Congress Street
Portland, ME 04101
(207) 874–8409

Partners

Portland School Department; Office of Refugee Resettlement; U.S. Fire Administration (2-year, $35,000 grant).

Program

Recent immigrants from Southeast Asia are particularly vulnerable to fire deaths and injuries because they lack knowledge about fire prevention and safety matters.

A communitywide smoke detector giveaway program by a local company targeted low-income and elderly individuals in single-family homes. The program included both education and installation.

Firefighters used translators and fire prevention information translated into Cambodian and Vietnamese to canvass door-to-door. They performed fire safety inspections, installed smoke detectors where needed, and gave away batteries for smoke detectors. The installation team included two to three persons—a fire department staff member, a translator, and/or a paramedic.

Start/finish

1987/1989.

Target population

Southeast Asians in apartments in the inner city.

Scope

Size of target population: 2,800 individuals. *Reach*: 2,800 individuals.

Evaluation and follow-up

The University of Southern Maine conducted an evaluation of the program. The fire department provided the data, along with a fire department run survey, and received back a printed evaluation.

They conducted a second walk-through of neighborhoods where personal contact had been made.

What to do differently

Try to concentrate on more one-on-one contact.

What worked well

Using translators during visits and public service announcements translated into Cambodian.

Baltimore City Fire Department

Contact

Hector Torres, Public Information Officer
Baltimore City Fire Department
414 North Calvert Street
Baltimore, MD 21202
(410) 396–5616

Partners

City health departments; Commercial Credit Corp. ($10,000); City of Baltimore (20,000 detectors); WMAR TV2 (media coverage); individuals, churches, and stores such as Hechingers and Home Depot (donations, including two-sided tape for installing detectors).

Program

In 1994, the fire department saw a drastic rise in fire fatalities; in the first 2 months alone; 25 people died in residential fires. Because many of the fires were concentrated in low-income areas, the fire department saw part of the problem as residents' inability to afford smoke detectors.

With help from the business community, primarily the support of local ABC affiliate WMAR TV2, the fire department was able to solicit over 10,000 smoke detectors for distribution. Mechanisms were put in place to establish an ongoing program which would provide free smoke detectors to any needy resident. The core of the program was the use of firefighters for installation of the detectors.

The fire department formed a partnership with the Baltimore City Health Department for a prenatal and early child care program that involved home visits by health care workers, who performed a survey. Among other things, the survey inquired whether there was a smoke detector in the home. If not, the health care worker contacted the fire department using an application form to request an installation. A firefighter then arranged to visit the applicant's home (usually within 1–2 days after the initial home health care visit) to install the smoke detector.

Start/finish

February 1994/ongoing.

Target population

Low-income families with young children, senior citizens, and the handicapped.

Scope

10,000 smoke detectors installed.

Evaluation and follow-up

The department's public information officer collected the forms sent in by the stations and established a database. Good data are available on recent installations, including where the greatest need is.

A follow-up postcard will be used to remind participants to replace their batteries.

What to do differently	No change envisioned.
What worked well	Having firefighters install the smoke detectors; this got them into the community for personal contact, which was good public relations and helped establish rapport with the community.

Department of Fire/Rescue Services

Contact

Mary Marchone, Fire Education Specialist
Department of Fire/Rescue Services
Executive Office Building
100 Monroe Street
Rockville, MD 20850
(301) 217–2448

Partners

Fire and rescue services, civic associations, multiresidence groups and home owners organizations (support for legislation); Board of Realtors (enforcement of legislation); federal community development block grant (funding for the smoke detector giveaway program).

Program

Montgomery County was one of the first jurisdictions in the country to mandate smoke detectors in all single new and previously existing family dwellings. Battery-operated smoke detectors were developed in 1972. By 1974, the community began working toward smoke detector legislation in rental units, despite strong opposition from landlords. Ultimately, the law was piggybacked on Maryland construction law to include all homes built before 1975. The county has incorporated the regulations into their fire safety and building codes. All new constructions built since 1975 are required to have hardwired smoke detectors; battery-operated detectors are required for single-family homes built before 1975. All multiple dwellings are required to be hardwired regardless of age.

The county received a federal block grant for a giveaway program. Fire/rescue services is the agent of deed on the grant. Social services and elder affairs agencies helped identify low-income families living in homes built before 1975 and to provide these families with smoke detectors (installed) and batteries.

Members of the Board of Realtors now help enforce the regulations. During walk-throughs, they check for functioning smoke detectors. The condition must be remedied by the settlement date. Failure to comply may result in a $500 civil citation for the seller.

Start/finish

1975/ongoing.

Target population

Low-income individuals living in housing built before 1975.

Scope

Entire county (207,000 households).

Evaluation and follow-up

Johns Hopkins University conducted an evaluation of the program for single-family owner-occupied homes. Evaluation measures included fire death rate; detector usage; and percentage of detectors working. Fire fatalities were reduced by 62 percent in the 10 years following 1978, when the law mandating smoke detectors was passed. In 1983, Montgomery County had a lower percentage of homes with no working detector (17 percent) than did neighboring counties or the nation.

Maintaining the smoke detectors that have been installed is now a high priority (a detector's life expectancy is approximately 10 years).

What to do differently

Decentralize distribution of smoke detectors.

What worked well

Involvement of the Board of Realtors, which helped with enforcement. Civil citations, rather than warnings, are now generally given for smoke detector violations.

Soroptimist International of Frederick County, Maryland

Contact	Peggy Webb Soroptimist International of Frederick County, Maryland 6328 New Haven Court Frederick, MD 21701 (301) 663–4988
Partners	Maryland state governor via the fire marshal (grantee); National Fire Administration (grantor); over 100 civic, service organizations, businesses, and individuals (installation, meeting sites, and publicity).
Program	Fire Safety Awareness for Elderly Citizens through Community Action distributed smoke detectors and batteries to adults (55 years and older) and low-income individuals. Literature on fire safety, stove safety, and chimney safety was also distributed. Lunch sites for the Frederick County Commission on Aging were visited and presentations were made. In the midst of completing the targeted program, a spin-off program began. In 1987, the Soroptimist entered into an agreement with Underwriters Laboratories (UL) to develop a standard for manufacturers to follow when designing and manufacturing smoke alarms for hearing-impaired people. Over $20,000 was invested in this program by the National Fire Administration, UL, Soroptimist, and the National Electrical Manufacturers Association. In 1993, UL published a standard to address this need. Several manufacturers now have smoke alarms that are listed by UL and are also approved by the Maryland State Fire Marshal. In June 1995, Soroptimist International of Frederick County sent announcements of the current availability of safe smoke alarms for hearing-impaired people to the over 160 partners who joined in to make all of these efforts a success. The Maryland State Firemen's Association and the Maryland Fire Chiefs Association also have joined in efforts to make the public aware that safe devices can now be purchased and given to persons with hearing impairments who are not able to make such an investment.
Start/finish	1985/1989.
Target population	About 20,000 county residents over the age of 55 years.
Scope	700 smoke detectors and batteries.
Evaluation and follow-up	The National Criminal Justice Association wrote an evaluation based on the quarterly reports submitted by the grantee. More than 400 batteries were given out as a follow-up program. Volunteers made telephone calls and visits over a 3-year period.

What to do differently	No changes envisioned.
What worked well	The Department of Aging and Social Services Office in the county and the health department helped with outreach to this target population by sending out notices to persons on their mailing lists.

Jewish Hospital, Rehabilitation Department

Contact

Sara Schmeer
Jewish Hospital, Rehabilitation Department
216 South Kings Highway
St. Louis, MO 63110
(314) 454–7587

Partners

Barnes Hospital (staffing and resources); Barnes Hospital Burn Care Center, Burn Care Support Group, St. Louis Fire Marshal's office, St. Louis Fire Department (fund-raising).

Program

Viewing this smoke detector giveaway program (Alarms for Life) as a way to prevent fire deaths, the Burn Care Center and Burn Care Support Group teamed up with the St. Louis Fire Marshal's Office, which had a similar project in mind but needed funding. It is perhaps one of the first instances of a health care institution originating such a project. The Burn Center and its partners handled the fund-raising (letters sent to major corporations and private citizens), generating more than $61,000 (72 percent from corporate sponsors and 28 percent from private individuals), and initiated the project for the fire department, including publicity. The fire department and Operation SafeStreet installed the smoke detectors. Operation SafeStreet was a city agency that conducted block-to-block crime prevention surveys and other similar activities that could be coordinated with the smoke detector program. Operation SafeStreet was paid for its installation work and assumed all related liabilities. The Mayor of St. Louis became involved, and the fire department has now adopted the program. Spin-off programs evolved in nearby communities.

Start/finish

August 1984/August 1986.

Target population

Most fires occur in North St. Louis, a low-income neighborhood, so this community was targeted for the program. Operation SafeStreet coordinated the selection of the target populations but did not turn down anyone who requested a smoke detector.

Scope

Operation SafeStreet installed 8,000 smoke detectors in the late 1980s.

Evaluation and follow-up

The program yielded measurable results. In 1984, 32 house fire deaths occurred in St. Louis. In 1985, there were 16 house fire deaths, one-half the previous year's total. In addition, firefighters reported 65 cases in which functioning smoke alarms had averted injury.

In light of the success of the Alarms for Life program in reducing house fire mortality, the board of aldermen passed an ordinance in 1985 making smoke detectors mandatory in all city residences. Program sponsors are now working to pass similar state legislation.

What to do differently Conduct a study on the effectiveness of these programs, and find ways for these fire prevention programs to become self-sustaining.

What worked well A great deal of publicity. The community was behind us. Whenever there was a fire, the fire marshal appeared on television to publicize the program.

Jewish Hospital, Rehabilitation Department

Contact

Sara Schmeer
Jewish Hospital, Rehabilitation Department
216 South Kings Highway
St. Louis, MO 63110
(314) 454–7587

Partners

Barnes Hospital Burn Care Center, Washington University School of Medicine (staff); Burn Care Support Group (fund-raising); Red Cross; Operation SafeStreet; Eveready's "Change Your Clock, Change Your Battery" promotion (publicity and batteries).

Program

The elderly and disabled, high-risk populations for fire injury and death, are more accessible to burn prevention programs because of the recent trend in increasing home health care delivery. Over 75 percent of the American Hospital Association membership is now involved in delivering to homes specialized care previously provided only in hospitals.

This outreach burn prevention program for home care patients was an outgrowth of the Alarms for Life program and represented an additional opportunity to distribute smoke detectors to higher risk populations and educate them about the importance of a planned safe escape. Home care nurses from the Home Care Department at Barnes Hospital received in-service training on how to conduct home safety surveys and properly install smoke detectors in homes, if necessary. Nurses screened high-risk homes (homebound clients) for availability of functioning smoke detectors during an initial visit. During a follow-up telephone call to the client, fire safety information was imparted and a smoke detector was offered free or at cost, depending upon ability to pay. During a subsequent visit, the home care nurse then provided, and if necessary, installed a smoke detector (using two-sided tape) and batteries in any homes without functioning smoke detectors.

Start/finish

July 1987/July 1988.

Target population

The elderly and disabled; anyone receiving home medical services.

Scope

Home care workers screened 200 to 250 homes per month for a 12-month period. During one 8-month period, nurses installed smoke detectors in 64 homes; 42 were paid for by the patient, and 22 were provided free of charge. Others said they would get their own alarm or would notify their landlord that one was needed according to city ordinance.

Evaluation and follow-up

Information not provided.

What to do differently	Get people involved so that the program could continue and become self-sustaining.
What worked well	Home health care workers have access to the homes of high-risk populations, and they can easily install smoke detectors where needed.

Safety and Health Council of Greater Omaha

Contact	Brigette Young Safety and Health Council of Greater Omaha 8710 F Street, Suite 122 Omaha, NE 68127 (402) 592–7233
Partners	Omaha Fire and Rescue; fire departments; corporate and private donations (smoke detectors); local media (publicity); an ongoing telemarketing campaign (fund-raising).
Program	Three-fourths of the homes in the state already have smoke detectors, but 50 percent of these detectors are inoperative. In 1989, the City of Omaha reached an all-time high in total property losses of $10 million. The Safety and Health Council of Greater Omaha investigated and came up with Operation Fire Safe. Firefighters canvass door-to-door to install smoke detectors and/or batteries for every owner-occupied dwelling. In related activities, a free public education program called Operation Fire Safe Family Day has become an annual event during Fire Prevention Week. All area fire departments are invited to bring a fire truck for display (usually 20–25 trucks). Activities are planned for children aged 4–13 years. If they complete all of the activities, they receive free fire chief's hats. Low-cost food is available from concessions. A puppet show, water games for children and adults, and a water fight tournament between the fire department units are additional scheduled activities.
Start/finish	May 1992/ongoing.
Target population	General population (goal is to cover the entire city through door-to-door canvassing).
Scope	*Size*: 80,000 households. *Reach:* Approximately 15,000 homes covered and 5,000 smoke detectors distributed (and even more batteries).
Evaluation and follow-up	No fire death has occurred in Omaha for 10 years in a home protected by an operable smoke detector.
What to do differently	Raise money before beginning the program by applying for grants, etc.
What worked well	Canvassing door-to-door. Installing the detectors ensures proper installation and is also great public relations for the fire department.

North Lake Tahoe Fire Protection District

Contact

Jerry Adams, Fire Marshal
North Lake Tahoe Fire Protection District
P.O. Box 385
Crystal Bay, NV 89402
(702) 831–0351

Partners

Rotary International; Fire Marshal's Office.

Program

Incline Village and Crystal Bay are 40-year-old communities with some special firefighting problems— snow and access problems, occasional water deficits, and large homes (some 10,000–20,000 square feet) that often sit back from the paved city road. The community has passed amendments to the Uniform Fire Code to address these problems.

To ensure sufficient early warning for the fire department in case of fire, all construction plans are reviewed by the fire marshal. Current regulations require interconnected, 110-volt, hardwired smoke detectors with battery backup interconnected throughout the dwelling. Depending on square footage, type of construction, etc., sprinkler systems and monitored alarm systems may be required.

An Insurance Services Office fire flow evaluation is also conducted. Dwellings with a 200–400-gallon deficiency in fire flow are required to have a monitored alarm system. Those with a 400-gallon deficiency or greater are required to have a sprinkler system in addition to the monitored alarm.

In related activities, target hazards (areas where low-income families live) are inspected. Educational programs are conducted at schools throughout the area. Support of the fire prevention curricula in the schools has been active since 1976. Approximately 50 smoke detectors were distributed in an area school as part of ongoing public education. In December 1994, a special smoke detector giveaway program was conducted for Hispanic families. Families will be taught how to install and maintain one detector per sleeping area.

Start/finish

1976/ongoing.

Target population

Community residents, especially those in large homes with access problems; low-income families; school-age children; and Hispanic families.

Scope

Information not provided.

Evaluation and follow-up

Remodeling, title transfer, and change of lease trigger compliance checks on smoke detector operability. Monitored systems must be checked annually.

What to do differently	Obtain more community input; involve the community in public education; increase personnel.
What worked well	Frequent outreach to schools. Staff visit the schools seven times per year, reaching children in all grades, from preschool through high school.

New Mexico State Fire Marshal's Office

Contact

George Chavez, Staff Development Specialist
and Statewide Hazardous Materials Coordinator
New Mexico State Fire Marshal's Office
P.O. Drawer 1269
Santa Fe, NM 87504–1269
(505) 827–3550

Partners

National Association of State Fire Marshals (NASFM) (smoke detectors); Department of Health and Human Services, Social Services, the Census Bureau, and Office of the Medical Examiner (materials and information regarding the program).

Program

The New Mexico State Fire Marshal's Office implemented a system to select target populations according to specific eligibility criteria and distribute 3,500 smoke detectors (most of which had been provided by NASFM) through local fire departments. The fire marshal's office solicited grant proposals from 324 fire departments throughout the state, requiring that the departments develop specific criteria for the identification of disadvantaged populations and commit to installing the free smoke detectors.

At the local level, fire departments identified households at risk through various methods. Residents applied to their neighborhood fire departments for a free smoke detector. Most of the detectors were then installed by the department. A liability waiver was developed for use by some fire departments that were concerned about installation liability. Educational information was provided for distribution locally.

Start/finish

January 1992/June 1993.

Target population

The elderly, persons with handicaps, low-income persons, and households with children were targeted by the program. Single-parent families with small children in the home were given high priority in the wake of a recent child death in a low-income single-parent household in Roswell, New Mexico.

Scope

A total of 3,500 smoke detectors were distributed (85,000 were requested by local fire departments, suggesting a large unmet need).

Evaluation and follow-up

Participating fire departments were asked to track lives and property saved as a result of the program. The fire marshal's office is trying to improve upon the National Fire Incident Reporting System (NFIRS) and hopes to collect data with which to approach their legislature for funding allocations.

	The state fire marshal's office recommended strongly that the homes of recipients be inspected 6 months after installation to make sure that the smoke detectors were still properly placed and functioning. This was a suggested activity for National Fire Prevention Week.
What to do differently	Have many more smoke detectors available, given the immense need expressed.
What worked well	Tremendous cooperation from all persons involved.

Cleveland Fire Department

Contact

Jonathan Parries, Public Relations and Education Director
Cleveland Fire Department
1645 Superior Avenue
Cleveland, OH 44114
(216) 664–6387

Partners

Cleveland Fire Department, Red Cross, WEWS TV5. Mayor allocated $15,000 in block grant money to families that could not afford smoke detectors. Donations came from the Aluminum Cans for Burned Children program ($20,000) and from individuals, businesses, and groups such as the Jewish Federation ($65,000) and the Cleveland Foundation ($50,000) in response to media coverage.

Program

The program included three components:

Canvassing. Volunteers and paid staff canvassed door-to-door surveying for presence of smoke detectors. For nonrental housing, owners without smoke detectors were encouraged to purchase them (sold at cost by a department store). Those who could not afford a detector were given a special telephone number to call. A smoke detector and information were then sent to their neighborhood fire station for them. Participants picked up the smoke detector at the fire station. Firefighters would also install the smoke detector, if necessary.

Enforcement. A strict city ordinance is in place. For example, landlords are held liable for fire fatalities among their tenants if no smoke detectors are installed. Since 1989, the housing department and the fire department also inspect one- and two-family homes and can impose $100 fines if no detector is installed within 72 hours of a warning.

Education. Fire safety literature door hangers were distributed door-to-door to over 200,000 homes. Fire safety assemblies were conducted. Fire trailers were used for school demonstrations. The trailers were set up like houses, and the children could practice crawling through toxic-free smoke, experience a "hot door," etc. During a 6 p.m. news event, all sirens in the city sounded as a reminder to "Change Your Clock, Change Your Battery."

Start/finish

October 1992/ongoing.

Target population

Because the program was supported by block grant funding, the department was required to ask participants about income level. Elderly persons, persons with disabilities, and single-parent families were also targeted. Special programs for Hispanics target arson fires.

Scope

20,000 smoke detectors have been distributed since October 1992; 3,000 residents are on a waiting list.

Evaluation and follow-up	The department maintains a database of smoke detector recipients. If the respondent had a smoke detector that was provided (but not installed) by the fire department, the recipient signed an agreement that the fire department could come in and inspect the smoke detector.
What to do differently	Try to enforce the city ordinance.
What worked well	Having firefighters install the smoke detectors. Support from the news media.

Environmental Health Services Branch

Contact	John Sery, Chief Environmental Health Services Branch 2900 4th Avenue, N Box 2143 Portland, OR 59101 (406) 247–7099
Partners	Indian Health Service, Fire Department.
Program	As the Portland Area Indian Health Service Injury Prevention Coordinator, John Sery was involved in reducing injuries wherever and however possible. The Puyallup Tribe had a high rate of burn injuries because of house fires. A tribal representative contacted the coordinator about installing smoke detectors in as many homes as possible, beginning with the oldest and most fire-prone structures. The program was contemplated 8 years ago. Fire and burn rates were determined as a baseline. Homes in need of smoke detectors were identified. The Indian Health Service and the fire department were prepared to work together and smoke detectors were ready to be installed (hardwired with battery backup), when a liability question arose that halted the project. The groups sponsoring the project were concerned that they might be blamed for a fire caused by faulty installation.
Start/finish	The program was never implemented because of liability concerns.
Target population	Members of the Puyallup Tribe.
Scope	Not applicable.
Evaluation and follow-up	Not applicable.
What to do differently	Determine in advance any barriers that might disrupt the project, such as the liability issues encountered.
What worked well	Not applicable.

Burn Prevention Foundation

Contact

Jean Hertzog, Director
Burn Prevention Foundation
5000 Tilghman Street
Allentown, PA 18104
(610) 481–9810

Partners

Allentown/Bethlehem SAFE KIDS Coalition, Burn Prevention Foundation; civic organizations; Head Start and other community agencies (identification of target population through referrals); the National SAFE KIDS Campaign (smoke detectors and batteries).

Program

The mission of the Burn Prevention Foundation is to educate the people of the region, primarily those in high-risk groups, about burn prevention. As a member of the National SAFE KIDS Coalition, the foundation was able to obtain smoke detectors to distribute to needy families in the local area.

Through local organizations such as Head Start and City Safety, the foundation identified low-income families that did not have smoke detectors in their homes. Volunteers such as the Boy Scouts were recruited to contact the families and make arrangements to install detectors.

Start/finish

September 1994/ongoing.

Target population

The target population was determined through referral agencies and an appeal through the media. The program initially targeted the elderly and then expanded outreach to low-income individuals as well.

Scope

Information not provided.

Evaluation and follow-up

The Burn Prevention Foundation conducted an evaluation.

The smoke detector installations have been documented. The foundation plans to revisit the participating homes to check for maintenance and provide new batteries for the installed detectors, if necessary.

What to do differently

Information not provided.

What worked well

Information not provided.

Pennsylvania Fire Services Institute

Contact	Marko Bourne, Executive Director Pennsylvania Fire Services Institute 123 Walnut Street, Suite 220K Harrisburg, PA 17101 (717) 236–5995
Partners	Fire, building trade, and local officials (development of a state building code); the Pennsylvania Fire Services Institute (funding);the Firemen's Legislative Federation (underwriting of briefing program costs).
Program	Pennsylvania has no statewide building code and therefore no smoke detector requirements. Only 300 of 2,500 Pennsylvania's municipalities have local smoke detector codes. The Pennsylvania Fire Services Institute is working with a coalition of fire, building trade, and local officials to enact a state building code containing a smoke detector provision. The coalition is reviewing draft legislation and revising it toward consensus. Most likely the statewide building code will require smoke detectors in all new and renovated dwellings and all multifamily dwellings. Title transfers and home sales would also trigger inspections. Only battery-operated detectors will be required for preexisting dwellings. Enforcement will be handled locally. Two legislative and press briefings were held to discuss building codes and the need for smoke detectors and sprinkler systems.
Start/finish	January 1992/ongoing.
Target population	General population.
Scope	Information not provided.
Evaluation and follow-up	Information not provided.
What to do differently	Increase television and radio coverage to encourage passage of the legislation.
What worked well	Information not provided.

Philadelphia Fire Department

Contact

Chuck Lindsay, Battalion Chief
Philadelphia Fire Department
240 Spring Garden Street
Philadelphia, PA 19123
(215) 592–5967

Partners

The Philadelphia City School District and the Philadelphia Fire Department (training and employment); private donors (funding); Channel 6 (media coverage, which netted 10,000 smoke detectors and batteries donated by program sponsors for a three-county area); federal funds (support for the youth employment program); the department of health (smoke detectors); the fire department (tape for installation); and the Burn Foundation (hats and T-shirts for children).

Program

In 1992, 31 children under the age of 12 died in Philadelphia fires. The following three programs were launched to prevent deaths from fires:

Youth employment program. The city school district invited the fire department to participate in a summer employment program for youths 14–18 years of age. Department personnel trained the youths in basic skills such as cardiopulmonary resuscitation and fire prevention. Forty youths inspected for smoke detectors in an eight-block area of a 90 percent Hispanic neighborhood. The young people were instructed to take an inventory, which required them to practice math and other skills.

Save a Child Letters. A total of 318 grade schools (public, private, and parochial) and 60 fire houses conduct fire prevention programs for schools. A handout—with space for name and other identifying information—asks, "Do you have a smoke detector?" Families return the forms to the principal, who calls the local fire house to arrange for any installations necessary. Persons installing the detectors used double-sided tape with toilet plungers. There are no income requirements for this program.

(3) **Save a Child, Phase II.** A nurse at the University of Pennsylvania suggested the idea of distributing smoke detectors to newborns in newborn gift packages. The fire department supports the program (obtaining the smoke detectors at cost) but does not perform installations, unless requested. They hope to interest all hospitals with maternity wards; thus far 10 out of 12 hospitals have signed up.

Start/finish

July 1993/August 1993 (youth program).

Target population

In the low-income area, anyone who wanted a smoke detector was eligible for one.

Scope	As part of the youth program, 360 smoke detectors were installed in a Hispanic neighborhood during a 6-week period. Taking all of Philadelphia's programs together, over 12,500 smoke detectors have been distributed and/or installed over a 2–year period.
Evaluation and follow-up	Whenever a fire death occurs, smoke detectors are installed for the entire block. Broad media coverage is solicited.
What to do differently	No changes envisioned.
What worked well	Youths in the teen program. They were great; they knew their activities could save a life.

Office of the South Carolina State Fire Marshal

Contact	Sondra Vann Senn, Public Fire Education Manager Division of Fire and Life Safety Office of the South Carolina State Fire Marshal 141 Monticello Trail Columbia, SC 29203 (803) 896–9800
Partners	State of South Carolina ($50,000 for educational materials and the purchase of 100 smoke detectors for each county, and the offering of additional smoke detectors to counties at below-cost rates of $4.50 each); industry and community organizations (100,000 smoke detectors).
Program	Primarily because of its large rural and low-income populations, South Carolina ranks among the top five states in the nation in fire deaths. The problem worsened in the years 1985–1987. The fire marshal's office launched a statewide fire safety awareness campaign—with the theme "Get Alarmed, South Carolina!" The goal of the program was to provide smoke detectors to the highest risk segment of the population. One component of the program involved providing smoke detectors to the families of newborns, a collaborative project between the hospitals and the fire departments. Smoke detectors were provided to the children through Medicaid.
Start/finish	October 1989/ongoing.
Target population	Infants, the elderly, low-income persons, and persons with disabilities.
Scope	A total of 22,000 smoke detectors were provided free of charge to families requiring smoke detectors. In addition, over 100,000 smoke detectors were provided by local industry and community organizations.
Evaluation and follow-up	The Office of the South Carolina State Fire Marshal maintains records of smoke detectors placed and also monitors fire deaths. After 3 consecutive years of increasing fire fatalities, South Carolina registered its first decrease in 1988. The fire marshal estimates that 98 more lives would have been lost had the trend prior to the program's start continued. Follow-up was conducted through telephone calls, mailings, etc.
What to do differently	Information not provided.
What worked well	Information not provided.

American Red Cross/San Antonio Area Chapter

Contact	Betty Richter American Red Cross/San Antonio Area Chapter 3642 East Houston San Antonio, TX 78219 (210) 224–5151
Partners	Local fire departments; county fire marshal; American Red Cross (grant).
Program	Because fire is the most expensive and most frequently reoccurring disaster, fire safety is a major focus of the American Red Cross. The Fired Up Teens program recruits and trains young people to canvass the community (with an emphasis on disadvantaged neighborhoods) to install smoke detectors. During home visits, the teens also discuss fire safety and provide written materials to reinforce the messages.
Start/finish	July 1993/ongoing.
Target population	Target population is determined by age, income, and fire incidents within a given census tract.
Scope	Information not provided.
Evaluation and follow-up	Thirty-nine lives saved had been recorded as of May 1995. Quarterly self-evaluations are performed for the American Red Cross national headquarters in Falls Church, Virginia.
What to do differently	Recruit teens from existing youth groups (e.g., Scouts, church groups, honors groups, sororities and fraternities, YMCAs and YWCAs, and local colleges with service requirements for graduates) because this allows the project to build on the groups' own infrastructures.
What worked well	The fire department's strong support of the project. One-on-one fire safety presentations in the homes.

Houston Fire Department

Contact

Charles Key
Houston Fire Department
410 Bagby Street
Houston, TX 77007
(713) 694–4576

Partners

Local government; community organizations (smoke detector installations and volunteers); Houston Firefighters Burned and Crippled Children's Fund (funding). Local businesses such as Radio Shack, Home Depot, and a local grocery chain (smoke detectors); local SAFE KIDS coalition (fire prevention activities in the schools).

Program

During Fire Prevention Week, a city council member interested in fire prevention education works with the Houston Fire Department to organize volunteers from local businesses and community organizations to assist in installing free smoke detectors for eligible residents (e.g., senior citizens, single parents with children, persons with disabilities). The smoke detectors are donated by local businesses and organizations. Each year, 3 weeks before Fire Prevention Week, the program is publicized through public service announcements, and information is disseminated through civic organizations. Information packets are prepared with instructions for volunteers. Smoke detector recipients sign release forms. The first year of the program involved a massive effort to cover as many households as possible; efforts in subsequent years have not needed to be as comprehensive.

In related activities, the Houston Fire Department cooperates with the local SAFE KIDS coalition in a monthly activity that targets schools in neighborhoods where people have died in fires recently. The schools identify children whose households are without smoke detectors, and volunteers are sent to install the detectors.

The fire department also responds to individual requests from senior citizens, single-parent families, and persons with disabilities. Fire department staff from the Community Relations Office are sent to install the detectors.

Start/finish

October 1992/ongoing.

Target population

Houston programs concentrate on single-family and duplex owner-occupied dwellings. Specific groups targeted are the elderly, those on fixed incomes, single parents with children, and persons with disabilities. Civic organizations, the school system, and Black and Hispanic Caucuses within the Firefighters Union assist in identifying and reaching eligible households.

Scope

Approximately 3,000 smoke detectors have been distributed.

Evaluation and follow-up	The Houston Fire Department has looked at fire records for the years 1993 and 1994 and noted an overall 28 percent reduction in unintentional residential fires since the fire prevention education and smoke detector distribution programs began. Although many factors may be involved in the reduction in residential fires, the department credits increased fire safety awareness with much of this success.
What to do differently	Information not provided.
What worked well	Broad-based community coalition.

Ogden City Fire Department

Contact	Bob Wright, Fire Marshal Ogden City Fire Department 320 26th Street Ogden City, UT 84401 (801) 629–8074
Partners	Information not provided.
Program	Many of the city's older dwellings and mobile homes were built before the existence of building codes that require smoke detectors. To correct the deficiency, Ogden City enacted a retroactive smoke detector ordinance. The ordinance, combined with public education efforts and enforcement, was the best option for Ogden City. The program involved not only passing a retroactive smoke detector ordinance, but also identifying noncompliant residences and enforcing the ordinance. Firefighters canvassed door-to-door offering ordinance information, brochures on smoke detectors, and other fire safety tips. A home inspection was completed at this time.
Start/finish	1990/ongoing.
Target population	Apartments and mobile homes.
Scope	Information not provided.
Evaluation and follow-up	Program staff have directly measured a reduction in residential fires and deaths in fires. Follow-up is performed by the fire prevention division, one fire marshal, and three fire inspectors. Follow-up ensures enforcement of the smoke detector ordinances.
What to do differently	Develop more realistic time frames for full programs.
What worked well	Combining in-home safety inspections with smoke detector education and information dissemination.

Chesapeake Fire Prevention Bureau

Contact	T.H. Cooke, Battalion Chief and Fire Marshal Chesapeake Fire Prevention Bureau 304 Albemarle Drive Chesapeake, VA 23320 (804) 547–6566
Partners	Community Development Block Grant; Commonwealth of Virginia.
Program	In the early 1980s, statistics nationwide were beginning to show the effectiveness of residential smoke detectors in saving lives, reducing property damage, and minimizing injuries to fire department personnel. The fire prevention bureau noted that most fire fatalities were occurring in the low-income areas of the city. This suggested the need to place smoke detectors in homes where low-income families reside. In Phase 1 of the program, smoke detectors were distributed and installed. Proof of low income was required. Residents resisted giving proof of income and allowing firefighters into their homes, which led to a low response rate. Phase 2 involved door-to-door canvassing to distribute (but not necessarily install) the smoke detectors. Proof of income was no longer required. A new component to the program was to replace batteries at fire scenes. With every smoke detector distributed and/or installed, home fire safety information was also given out, including 911 telephone stickers and calendar stickers reminding residents to test their detectors and change the batteries.
Start/finish	1985/ongoing.
Target population	Low-income persons and the general population.
Scope	Information not provided.
Evaluation and follow-up	A database includes information on where detectors were installed. This database can be linked to a computerized fire reporting system to determine where lives and property have been saved. After fire calls, fire department staff test smoke detectors and replace batteries, if necessary. The department also mails out reminders to smoke detector recipients when batteries should be replaced.
What to do differently	No changes envisioned.
What worked well	Not requiring written proof of annual income and canvassing door-to-door (this improved the response rate). Not requiring that every detector be installed by the department.

Bremerton Fire Department

Contact

Lori Collins, Fire and Life Safety Specialist
Bremerton Fire Department
817 Pacific Avenue
Bremerton, WA 98337
(360) 478–5393

Partners

Rotary and Kiwanis Clubs of Bremerton; Community Development Block Grant (funding); fire department, Navy, Boy Scouts, and other organizations (personnel).

Program

Fires in residential properties without smoke detectors were on the rise. A new fire chief with fire prevention priorities hired a full-time fire prevention specialist (the first in the county) to organize an intensive smoke detector campaign.

Volunteers canvassed door-to-door throughout the city to determine the presence or absence of smoke detectors, the age of smoke detectors, and whether they needed batteries. The fire departments then remedied the situation in each home.

In related activities, program staff held meetings with renters and property owners to explain the smoke detector laws and how they were being enforced. Newsletter articles were written for renters and home builders, explaining their responsibility to install smoke detectors.

Start/finish

March 1985/ongoing.

Target population

Elderly persons, low-income families, and people in West Park (a low-income section of town).

Scope

Size of target population: 16,000 households. *Reach*: 16,000 households.

Evaluation and follow-up

A random follow-up survey was conducted by telephone to see whether the smoke detectors were functioning properly. Department run reports revealed an increase in fire calls but less damage. The average fire dollar loss per capita fell from $75 in 1985 to $15 in 1986 and to $9.70 in 1987, despite an increase in the number of fires (from 846 in 1986 to 890 in 1987). Fires in homes with poorly maintained smoke detectors remain a problem, as does education of new occupants of rental housing in highly transient areas.

Smoke detector recipients frequently call after 5–7 years, reporting that the smoke detector is malfunctioning and asking for advice. The department offers to replace the detector or install a new one that the home owner purchases.

What to do differently	Seek additional funding to purchase replacement smoke detectors (detectors installed early in the program are due to be replaced).
What worked well	Surveying all city homes. Determining the status of protection in each home. The volunteers and organizers worked well.

Jackson/Teton County Fire Department

Contact	Ken Sutton, Administrative Fire Chief Jackson/Teton County Fire Department P.O. Box 901 Jackson, WY 83001 (307) 733–4732
Partners	Community volunteers; National Association of State Fire Marshals; National SAFE Home Foundation, Inc.; volunteer fire departments in Jackson, Wilson, Hoback, Moran, and Sublette Counties (donation of proceeds from annual fund-raising events).
Program	In 1992, the fire department became involved in the American Seniors Smoke Detector Program sponsored by the National Association of State Fire Marshals. Volunteers from the community and the fire chief's office formed the Fire Abatement Community Team (FACT) and conducted two programs: **American Seniors Smoke Detector Program.** The FACT team installed smoke detectors in the homes of senior citizens. When this program began to slow down, the group sought a second project. **Smoke Alarm For Every Home (SAFE).** SAFE provides free smoke alarms to homes with newborn babies and is sponsored by the National SAFE Home Foundation, Inc. Members of the fire department deliver the alarms (shaped like dalmatian puppies) to the hospital annually. The nurses distribute the alarms and have the parents sign release forms before each newborn's departure from the hospital.
Start/finish	June 1993/ongoing.
Target population	Elderly persons, persons with handicaps, persons with low and moderate incomes, and parents of any newborn baby, regardless of where they live.
Scope	The program targeting newborns distributed 290 smoke detectors in its first year.
Evaluation and follow-up	By keeping records based on the release forms recipients fill out and sign (for both programs), the fire department can track the distributed alarms against fire reports. As yet, there have been no documented lives saved.
What to do differently	No changes envisioned.
What worked well	Funding from the volunteer fire departments that make up the Jackson/Teton County Fire Department.

National Programs

National Association of State Fire Marshals

Contact	Carla Minier, Executive Assistant National Association of State Fire Marshals 7611 South Orange Blossom Trail Box 237 Orlando, FL 32809–8521 (407) 299–8743
Partners	State and local fire marshals and fire departments; Philip Morris (grant).
Program	In a nationwide program initiated by the National Association of State Fire Marshals—the NASFM Challenge—86,000 smoke detectors were distributed to 27 states (a maximum of 3,500 to each state). The local departments then distributed the smoke detectors to local jurisdictions, which installed the detectors and provided education materials to recipients. Participating states were required to submit a plan for identifying the target groups distributing the detectors and to commit to surveillance of where the detectors were installed and how many lives were saved.
Start/finish	May 1992/November 1992.
Target population	Specifically targeted were the needy, the elderly, and families with children, although it was left up to each individual state involved in the national distribution program as to how they would identify and qualify participants. Some of the methods used were referrals from social service agencies or lists of recipients of free school lunches.
Scope	About 86,000 smoke detectors were distributed nationwide; 500,000 requests were received that could not be filled.
Evaluation and follow-up	As of the summer of 1994, 39 saved lives had been recorded throughout the country.
What to do differently	Obtain additional funding (because the program received 500,000 requests that could not be filled, the National Association of State Fire Marshals is seeking $2-3 million in funding for a second phase). Use more advertising to alert the public to the program. Use the media earlier in the campaign. Enhance the education component. Issue a guide to follow for distribution and education in the community.
What worked well	Media coverage, which was very positive.

National SAFE KIDS Campaign

Contact

Alan Korn, Public Policy Associate
National SAFE KIDS Campaign
111 Michigan Avenue, NW
Washington, DC 20010–2970
(202) 884–4993

Partners

Johnson and Johnson (corporate sponsor of the National SAFE KIDS Campaign); First Alert (smoke detectors); BRK (50,000 smoke detectors); federally matched subsidies for some safety devices such as smoke detectors, bicycle helmets, and car seats are available for families with special needs, such as low-income families.

Program

The National SAFE KIDS Campaign supports approximately 180 state and local coalitions in 49 states and the District of Columbia. Staff work with firefighters, police officers, mothers, pediatricians, nurses, and community organizations to make life safer for children in a variety of ways. Many of the SAFE KIDS coalitions run smoke detector education and giveaway programs. The National SAFE KIDS Campaign provides smoke detectors to the coalitions, and the coalitions then pass them on to low-income families. National SAFE KIDS has also developed brochures and information packets that can be used for public education.

Several states have legislation that covers only new dwellings and is not retroactive to older dwellings. National SAFE KIDS has developed model legislation that can serve as a basis for state and local smoke detector laws advocated by SAFE KIDS coalitions throughout the country. They include this in their public policy packet, which also includes a selection of media articles and other information on smoke detectors. National SAFE KIDS staff are frequently asked to testify at hearings and to organize visits to members of Congress so that children, victims, and experts can tell their stories. The main opposition to smoke detector legislation is the fear of "big government" curtailing individual freedoms.

Start/finish

1987/ongoing.

Target population

Low-income families, especially those with young children.

Scope

50,000 smoke detectors were provided by the National SAFE KIDS Campaign to state and local coalitions and then were passed on to underserved populations.

Evaluation and follow-up

SAFE KIDS conducted a survey to visit or revisit homes and check whether smoke detectors were properly installed and maintained.

What to do differently	Information not provided.
What worked well	Information not provided.